Table 1. INEL transuranic mixed and non-mixed waste identification and description information. 9/17/95

Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unknown
3	1	178	ID-RFO-312T	312	COARSE GRAPHITE	After the casting of plutonium in production foundry operations, Item Description Code (IDC 300) was mechanically cleansed, generating IDC 310, graphite scarfings, and IDC 312, coarse graphite. This waste stream represents the coarse graphite portion that was generated. ID-RFO-312T contains both low-level (Interval 0) and transuranic (Intervals 1 through 34) waste. Interval 0 information is included in the ALLW appendix, intervals 1-34 in the TRUW appendix.	Rocky Flats Plant	3	1	2	3
3	1	149	ID-RFO-320T	320	TANTALUM	This waste comes from the Rocky Flats Plant. It consists of used tantalum crucibles, funnels, funnel inserts, and pour-rods. The waste is packaged in standard RFP fashion. Sharp metal edges are taped before packaging. Other metals may include tungsten, platinum, and lead. Some lead-lined containers are included.	Rocky Flats Plant	3	2	2	3
3	1	111	ID-RFO-328T	328	FULFLO INCINERATOR FILTERS	Ful-flo (trade name) filters are in-line cartridge filters used to remove particulates from specific waste streams. The filters are one piece molded filters and the filter media is a red fibrous material or polypropylene.	Rocky Flats Plant	2	1	2	3
3	1	84	ID-RFO-330T	330	DRY PAPER AND RAGS	This waste stream is the largest combustible waste stream. The waste stream is from Rocky Flats Plant and primarily consists of line- and nonline-generated dry combustible materials such as paper, rags, plastics, surgical gloves, cloth overalls and booties, cardboard, wood, wood filter frames, PE bottles, and laundry lint. Some combustibles may be damp or moist. Limited amounts of noncombustibles such as glass, concrete, cement, leaded glovebox gloves, batteries, and metal scrap may also be present. The average waste organic material content may range from 6 lb/ft3 for boxes to over 14 lb/ft3 for drums. Although limited fines are expected from floor sweepings, powder, etc., levels of fines should be within WIPP-WAC limits. The waste is packaged with no free liquids, sludges, explosives, compressed gases, pyrophoric or corrosive materials. Depending on when and where the waste was generated at Rocky Flats, the waste packaging may vary. For wastes generated prior to 1975, packaging information is incomplete. Line-generated waste may be double contained in plastic or placed in PE bottles and then double bagged. Nonline-generated wastes were single-bagged or placed directly into the waste container. Oil-Dri may have been added to some drums. After 1974, some waste was drummed, and some waste was placed in 4 ft x 4 ft x 7 ft boxes. Some combustibles are single, double or quadruple bagged or wrapped PVC and PE bags or plastic. Combustibles such as clothing and dryer lint are placed directly into 55-gallon drums. Some wastes are placed in 1-gallon PE bottles. Some drummed waste was repacked into boxes to reduce volume. During repacking, any noncombustibles were removed. Some boxes may contain moist combustible waste and up to 100 lb of Oil-Dri. Drums containing wastes from the Americium Recovery Line are lead-lined. Drums shipped prior to 1977 contain compacted wastes.	Rocky Flats Plant	1	2	2	3
3	1	112	ID-RFO-335T	335	ABSOLUTE 8 X 8 FILTERS	This waste stream, generated at the Rocky Flats Plant, consists of absolute filters used for filtering intake and exhaust air from glovebox lines. The filters are composed of wood or particle board frames and an asbestos-type filter media. The waste may include limited amounts of combustible materials (surgical gloves, etc.). Several sizes of filters may be present. This code has not been used since 1975. Since then absolute filters were processed as Content Code 338 (insulation and CWS filter media) or 376 (cemented insulation and filter media). Some of the drums may be lead-lined. Although there may be some organic material, it should be less than 14 lb/ft3. Significant amounts of respirable fines may be present. No sludges or free liquids should be present. No explosive, pyrophoric, or corrosive materials should be in this waste, except for some residual amounts of nitric acid. Each filter is double contained in PVC and PE bags and assayed. Up to 12-20 filters are placed in each prepared drum. Small amounts of Oil-Dri are added to drums containing damp filters. Drums were packed according to the usual pre-1972 and post-1972 procedures.	Rocky Flats Plant	2	2	2	1

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3	1	85	ID-RFO-336T	336	MOIST PAPER AND RAGS	The waste stream is from the Rocky Flats Plant and primarily consists of damp or wet line- and nonline-generated dry combustible materials such as paper, rags, plastics, surgical gloves, canvas, cardboard, wood, PE bottles, and rubber. Some combustibles may be damp or moist. Moisture content may range from damp to wet and may include water, soaps, nitric acid, or caustic solutions. Limited amounts of noncombustibles such as glass, concrete, cement, leaded glovebox gloves, and metal scrap may aslo be present. These wastes are mostly from decontamination and cleanup work and may be from any plutonium area. The average waste organic material content may range from 6 lb/ft3 for boxes to over 14 lb/ft3 for drums. Combustibles in the waste exceed 25 volume percent. Although limited fines are expected from floor sweepings, powder, etc., levels of fines should be within WIPP-WAC limits. Some free liquids may be present. No explosives or compressed gases are present after 1976. No aerosol cans are present after 1977. Prior to 1975 come spontaneous ignition material and nitric acid may be included. Depending on when and where the waste was generated at Rocky Flats, the waste packaging may vary. For wastes generated prior to 1975, packaging information is incomplete. Waste may be placed directly into drums, or single or double contained in plastic. Some waste may also be placed in PE bottles and then double bagged. Oil-Dri may have been added to some drums. Drums were prepared according to pre and post-1972 procedures. Inspections were done and adsorbents (Oil-Dri and vermiculite) were added according to standard procedures. Some waste was also containerized in plywood boxes. The waste is contained in one to four layers of plastic. Oil-Dri and portland cement were added in layers with the waste. Depending on moisture conditions, the amount of absorbent varies from 25-200 lb per box. Boxes were prepared according to pre and post-1972 procedures. After 1974, waste was typically double contained in PVC and PE bags or else placed in PE bottles and then double-bagged. Absorbent was not added to the waste. Until 1977, some of the waste was compacted in prepared waste drums. Some drummed waste was also repacked into boxes to reduce volume. All drums are assayed. The fissile content of boxes is determined from the combined assays of the waste drums emptied into the boxes. After 1980, boxes received a second assay. Drums containing wastes from the Americium Recovery Line are lead-lined.	Rocky Flats Plant	1	2	2	3
3	1	86	ID-RFO-337T	337	PLASTICS, TEFLON, WASH, PVC	This waste stream is from the Rocky Flats Plant and consists of various types of plastics such as PE, polyvinyl chloride (PVC), Teflon (TFE), and nonleaded rubber items. The waste may be bags, vials, bottles, sheeting, and surgical gloves. Some other combustible wastes such as respirator facemasks and paper may be included. Some small amounts of noncombustible wastes may also be present. The average waste organic material content may range from 6 lb/ft3 for boxes to over 14 lb/ft3 for drums. Levels of fines should be within WIPP-WAC limits, since added adsorbents are not included in the fines evalutaion. There should be no sludges, free liquids, explosives, compressed gases, pyrophoric, toxic, or corrosive materials. Depending on when and where the waste was generated at Rocky Flats, the waste packaging may vary. For wastes generated prior to 1975, packaging information is incomplete. Waste may be placed directly into prepared drums, or double contained in plastic bags. Small amounts of portland cement were added to bottles to absorb any residual liquids. Oil-Dri may have been added to some drums. Drums were prepared according to pre and post-1972 procedures. Inspections were done and adsorbents (Oil-Dri or vermiculite) were added according to standard procedures. Some waste was also containerized in plywood boxes. Boxes were prepared according to pre and post-1972 procedures. Some of the waste containers are lead-lined.	Rocky Flats Plant	2	2	2	3

Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unknown
3	1	113	ID-RFO-338T	338	INSULATION AND CHEMICAL WARFARE SERVICE	This waste stream, generated at the Rocky Flats Plant, consists of asbestos and fiberglass filter media, asbestos-type pipe insulation , and other materials such as aluminum and wood frames, and compacted insulation waste. Some of the waste may be damp. This code was replaced in 1977 with Content Code 376 (cemented insulation and filter media). Although there may be some organic material, it should be less than 14 lb/ft3 for drums and 6 lb/ft3 for boxes. Significant amounts of respirable fines may be present. No sludges or free liquids should be present. No explosive, pyrophoric, or corrosive materials should be in the waste, except for some residual amounts of nitric acid. The waste is contained in drums and boxes. The waste is generally double-contained in either PE or PVC bags or in 1-gallon PE bottles and single or double bags. The bottles were individually assayed. Some pipe insulation may be wrapped with tape, depending on contamination levels, and placed directly into drums. Absorbent was added to some drums containing damp waste. Drums were packed according to the usual pre-1972 and post-1972 procedures. Each drum was assayed. Each box was surveyed to determine a calculated fissile content. Coated and uncoated boxes were prepared according to standard pre-1972 and 1972-1974 procedures.	Rocky Flats Plant	2	1	2	1
3	1	133	ID-RFO-339T	339	LEADED RUBBER GLOVES AND APRONS	This waste comes from the Rocky Flats Plant and consists of leaded rubber gloves and aprons. A limited amount of unleaded gloves, lead bricks, and lead sheeting may also be present. Content Code 463 was replaced by Content Code 339 in 1973. Waste is packaged in standard RFP fashion. Lead linings are present on some drums.	Rocky Flats Plant	2	2	2	3
3	1	114	ID-RFO-360T	360	INSULATION	This waste stream, generated at the Rocky Flats Plant, consists of asbestos-type pipe insulation, asbestos gloves and fireblankets, and asbestos and fiberglass prefilter and filter media. The waste may include limited amounts of other materials, such as aluminum and wood frames, and compacted insulation waste. Some materials may be damp. The waste may include limited amounts of combustible materials such as surgical gloves. This code has not been used since 1973. Since then absolute filters were processed as Content Codes 338 (insulation and CWS filter media) or 376 (cemented insulation and filter media). Organic material should not exceed WIPP-WAC limits. Significant amounts of respirable fines may be present, expecially since some of the waste has been reduced to an "oatmeal" consistency from handling. Some waste which was wet was dried in a clothes dryer prior to packaging. No sludges or free liquids should be present. No explosive, pyrophoric, or corrosive materials should be in this waste, except for some residual amounts of nitric acid. The waste is contained in drums and one box. The waste is generally double-contained in either PE or PVC bags. The bottles were individually assayed. Some pipe insulation may be wrapped with tape, depending on contamination levels, and placed directly into drums. Absorbent was added to some drums containing damp waste. Drums were packed according to the usual pre-1972 and post-1972 procedures. Each drum was assayed. The box was surveyed to determine a calculated fissile content. The time when the box was used is not known. Coated and uncoated boxes were prepared according to standard pre-1972 and 1972-1974 procedures.	Rocky Flats Plant	2	1	2	1
3	1	98	ID-RFO-371T	371	FIREBRICK	This waste contains whole and broken pieces of construction bricks, cinderblocks, and firebrick. Waste generated in the 1971 to 1973 period includes firebrick from the Pu recovery incinerator and related refractory development and from four boilers' cinderblocks and other brick from routine maintenance and from D&D following the Rocky Flats Plant fire. Waste generated since 1973 is mostly firebrick from Pu recovery operations. The firebrick generated since 1973 is a high-alumina, high-strength, class F brick manufactured by Plibrico (Plicast 40). Typical composition is Al203 =95.67%, SiO2 = 0.03%, Fe203 = 0.10%, TiO2 = 0.01%, CaO = 3.6%, MgO = 0.8%, and Alkalies = 0.28%. Some of the incinerator firebrick is "scarfed" to remove surface contamination and then leached with nitric acid to recover Pu. Waste is packaged in standard RFP drums and boxes. After 1973, mostly drums were used and the waste was placed in PVC bags which were then placed into Fibre-Paks. Two Fibre-Paks fit in a drum. The single drum of Content Code 377 waste was determined by visual examination to be Content Code 371.	Rocky Flats Plant	3	1	2	3
3	1	197	ID-RFO-374T	374	BLACKTOP, CONCRETE, DIRT, AND SAND	This waste contains blacktop, concrete, reinforced concrete, cinderblocks, bricks, dirt, and sand. Limited amounts of waste may be damp. A limited amount may contain combustibles such as coveralls and gloves. The waste is generated from cleanup of spills and leaks, process changes, maintenance, and D&D operations. Portland cement is added to containers that contain wet or damp waste. Waste is packaged in standard RFP fasion in drums and boxes. Sometimes the waste is bagged before being placed in the containers.	Rocky Flats Plant	3	1	2	3

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Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unknown
3	1	99	ID-RFO-375T	375	OIL-DRI RESIDUE FROM INCINERATOR	This waste stream, generated at Rocky Flats Plant, includes Oil-Dri absorbent and waste from laundry and utility operations. Organic content should be less than 14 lb/ft3. No sludges or free liquids should be present. The Oil-Dri should meet WIPP immobilization standards. No explosive or pyrophoric materials should be in this waste. The material is contained in 55-gallon drums. Inside the drums, the waste may be contained in PE bottles and/or metal paint cans and double-bagged in PE and PVC bags. Some waste may also be contained in PE residue process containers (RPCS). Drums were prepared and inspected according to pre and post-1972 procedures. Starting in 1982, vermiculite instead of Oil-Dri was used in the tops of the drums. The waste matrix composition listed is for the incinerator waste. No information is available concerning the laundry and utility operation waste.	Rocky Flats Plant	3	1	2	2
3	1	115	ID-RFO-376T	376	CEMENTED INSULATION AND FILTER MEDIA	This waste stream, generated at the Rocky Flats Plant, consists primarily of filter media from pre-filters, absolute filters, etc., and limited amounts of insulation waste such as asbestos gloves and fire blankets. Portland cement is added to neutralize any residual nitric acid and reduce the potential for drum pressurization. Although there may be some organic material, it should be less than 14 lb/ft3 for drums and 6 lb/ft3 for boxes. Significant amounts of respirable fines may be present. No sludges or free liquids should be present. No explosive, pyrophoric, or corrosive materials should be in this waste, except for some residual amounts of nitric acid. The waste is contained in drums and boxes. Waste generated prior to 1979 is generally double-contained in either PE or PVC bags, 1-gallon PE bottles and/or metal paint cans. Most of this waste was repackaged into 15-gallon plastic bags after thorough mixing with portland cement. Drums were packed according to the usual post-1972 procedures. Each drum was assayed. Each box was surveyed to determine a calculated fissile content. Boxes were prepared according to standard post-1972 procedures.	Rocky Flats Plant	2	1	2	1
3	1	225	ID-RFO-409T	409	MOLTEN SALTS - 30% UNPULVERIZED	This waste was generated at Rocky Flats Plant in a molten salt extraction process to remove americium from plutonium metal. The salt is a sodium/potassium/magnesium chloride, with some entrained magnesium and various americium and plutonium compounds.	Rocky Flats Plant	3	1	2	3
3	1	226	ID-RFO-414T	414	DIRECT OXIDE REDUCTION SALT	This waste, generated at the Rocky Flats Plant, consists of chunks of salt generated in a direct oxide reduction process to reduce calcined plutonium to plutonium metal. The salt consists of calcium chloride with calcium oxide and calcium metal, as well as various plutonium compounds, entrained in the salt.	Rocky Flats Plant	3	1	2	3
3	1	220	ID-RFO-430T	430	UNLEACHED ION COLUMN RESIN	This waste, generated at the Rocky Flats Plant, consists of anionic and cationic exchange resins used in the purification and recovery of plutonium and americium, respectively. The anionic resins were DOWEX 1-X4 and the cationic resins were DOWEX 50W-X8, both being polystyrene-divinylbenzene copolymers.	Rocky Flats Plant	2	1	2	3
3	1	221	ID-RFO-431T	431	LEACHED RESIN	This waste, generated at the Rocky Flats Plant, consists of anionic and cationic exchange resins used in the purification and recovery of plutonium and americium, respectively. It is believed that the resins were Content Code 430 resins tthat were processed by leaching to recover plutonium. Content code was used during 1972 only.	Rocky Flats Plant	2	1	2	3
3	1	222	ID-RFO-432T	432	LEACHED AND CEMENTED RESIN	This waste, generated at the Rocky Flats Plant, consists of anion and cation exchange resins used in the purification and recovery of plutonium and americium, respectively. The resins are leached and cemented before disposal.	Rocky Flats Plant	3	2	2	3

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3	1	125	ID-RFO-440T	440	GLASS	This waste stream, generated at the Rocky Flats Plant, consists of glass sample vials, bottles, lead-taped sample vials, ion exchange columns, dissolver pots, laboratory glassware such as pyrex flasks and beakers, glovebox windows (glass, plexiglass, leaded glass), and crushed and ground glass. The waste includes limited amounts of other noncombustibles such as metals, and limited amounts of combustible wastes. No sludges should be present although some glass vials may contain limited amounts of free liquids. No explosive, pyrophoric, or corrosive materials should be in the waste. The glass may be packaged with some variation depending on if it is whole, broken to pieces, or crushed or ground. Whole or broken glass may be packaged in 1-gallon PE bottles, in 13-inch high by 15.5-inch diameter Fibre-Paks (either loose or inside plastic bags inside the Fibre-Pak), or double -packed in plastic bags, with the outside of the outer bag taped for protection against sharp edges. Glassware such as sample vials may be taped together before packaging. Nonline generated glassware, light bulbs, and fluorescent tubes are usually crushed or ground and placed directly into a prepared 55-gallon drum. Drums were packed according to the usual pre-1972 and post-1972 procedures. Specific information on the box preparation was not available. Each drum was assayed. Since 1972, the drums were also processed according to inspection and sealing procedures; and, since 1982, vermiculite instead of Oil-Dri was placed on top of the outer sealed PE drum bag. A small number of the drums are lead-lined. Also, Oil-Dri was added to the glass waste if moisture was present.	Rocky Flats Plant	3	2	2	3
3	1	126	ID-RFO-441T	441	UNLEACHED RASHIG RINGS	This waste stream, generated at the Rocky Flats Plant, consists of boronated glass rings used to minimize neutron multiplication in liquid storage tanks. Unleached Rashig Rings were used from 1971-79 as a separate stream and then combined with content code 442, Leached Rashig Rings. The rings are about 1.75 inch high and 1.5 inch in diameter, with a 0.25-inch wall thickness. The rings are heat and chemical resistant borosilicate glass with 11.8 - 13.8 weight % B2O3, with an isotopic content of 10B/11B of not less than 0.24. Some of the rings, which had above-discard amounts of plutonium, were leached with nitric acid to recover the plutonium and then rinsed with water and dried. Some of the rings may be contaminated with small amounts of oil. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in the waste. Trace amounts of nitric acid or organic contaminants may be present. The rings are triple contained in PE or PVC and placed in a 10-inch high, 15.5-inch diameter Fibre-Pak. Two Fibre-Paks are placed inside a prepared 55-gallon drum according to the standard pre-1972 and post-1972 drum packing procedures. A few of the drums contain broken rashig rings in taped-closed, 4-liter PE bottles with double bags inside the bottles. Each drum was assayed. Since 1972, the drums were also processed according to inspection and sealing procedures; and, since 1982, vermiculite instead of Oil-Dri was placed on top of the outer sealed PE drum bag. A small number of the drums are lead-lined. Also, Oil-Dri was added to the glass waste if moisture was present.	Rocky Flats Plant	2	2	2	2
3	1	127	ID-RFO-442T	442	LEACHED RASHIG RINGS	This waste stream, generated at the Rocky Flats Plant, consists of boronated glass rings used to minimize neutron multiplication in liquid storage tanks. Content Code 441, Unleached Rashig Rings, were used from 1971-79 as a separate stream, and then combined with Content Code 442, Leached Rashig Rings. The rings are about 1.75 inch high and 1.5 inch in diameter, with a 0.25-inch wall thickness. The rings are heat and chemical resistant borosilicate glass with 11.8 - 13.8 weight % B2O3, with an isotopic content of 10B/11B of not less than 0.24. Some of the rings, which had above-discard amounts of plutonium, were leached with nitric acid to recover the plutonium and then rinsed with water, and dried. Some of the rings may be contaminated with small amounts of oil. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in the waste. Trace amounts of nitric acid or organic contaminants may be present. The rings are triple contained in PE or PVC and placed in a 10-inch high, 15.5-inch diameter Fibre-Pak. Two Fibre-Paks are placed inside a prepared 55-gallon drum according to the standard pre-1972 and post-1972 drum packing procedures. A few of the drums contain broken rashig rings in taped-closed, 4-liter PE bottles with double bags inside the bottles. Each drum was assayed. Since 1972, the drums were also processed according to inspection and sealing procedures; and, since 1982, vermiculite instead of Oil-Dri was placed on top of the outer sealed PE drum bag. A small number of the drums are lead-lined. Also, Oil-Dri was added to the glass waste if moisture was present.	Rocky Flats Plant	3	2	2	2

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3	1	87	ID-RFO-460T	460	WASHABLES, RUBBER, PLASTICS	There is very little content information for this waste stream, which consists of washables, rubber, and plastic wastes from the Rocky Flats Plant . Waste matrix composition has been split equally among rubber, rags, and plastic.	Rocky Flats Plant	1	1	2	3
3	1	134	ID-RFO-463T	463	LEADED RUBBER GLOVES AND APRONS	This waste comes from the Rocky Flats Plan and consists of leaded rubber gloves and aprons. A limited amount of unleaded gloves, lead bricks, and lead sheeting may also be present. Content Code 463 was replaced by Content Code 339 in 1973. Waste is packaged in standard RFP fashion. Lead linings are present on some drums.	Rocky Flats Plant	2	2	2	2
3	1	54	ID-RFO-464T	464	BENELEX AND PLEXIGLASS	This waste, generated at Rocky Flats Plant, consists of Benelex, which is used for neutron shielding, and Plexiglas glovebox windows. Lead sheeting (1/8 to 1/4 in. thick) may be attached to some benelex pieces. Benelex was usually coated with fire-retardant paint. In addition to Plexiglas, other types of glass such as leaded-glass may be present in the waste. The waste may include limited amounts of surgeons' gloves, metal hinges on Benelex gloveport doors, pieces of angle iron attached to larger pieces of Benelex, and rubber gaskets from glovebox windows. Content code 302 replaced content code 464 during 1973. The majority of waste drums will contain pieces of benelex (gloveport doors, etc.) generated from routine maintenance and renovation projects conducted primarily in 1972. Plexiglas and other types of glass may be found mixed in with the benelex and/or segregated and contained in a limited number of waste drums. Pieces of benelex waste were usually placed directly into prepared 55-gallon drums. Any contaminated Benelex was usually contained in plastic bags or wrapped in plastic sheeting. Plexiglas windows were usually contained in plastic before being placed in a prepared 55-gallon drum. Oil dri may have been added to the waste drums. The waste boxes were generated during 1973 and 1974 and are believed to contain larger pieces of benelex shielding on angle iron frames that were removed during final fire cleanup operations in building 776. It is believed that the benelex came from the south foundry line in building 776, which was not directly involved in the 1969 fire and was decontaminated and placed back in operation.	Rocky Flats Plant	2	1	2	3
3	1	150	ID-RFO-480T	480	NONSPECIAL SOURCE METAL	The waste comes from the Rocky Flats Plant. It consists of nonline-and line-generated wastes. The waste may be in the form of gloveboxes, glovebox windows, furnaces, lathes, drill presses, ducting, piping, angle iron, tanks, downdraft tables, part carriers, respirator filters, ultrasonic cleaners, control panels, electronic instrumentation , vacuum sweepers, pumps, motors, railing, stairs, metal racks and trays, hotplates, empty metal produce and paint cans, carts, power tools (saws, drills, etc.), hand tools (wrenches, hammers, saws, chisels, gauges, etc.), chairs, desks, tables, typewriters, filing cabinets, crushed 55-gallon drums, etc. The waste may also include limited amounts of combustible wastes. The waste is packaged in standard RFP fashion. Sharp metal edges are taped before packaging. Some lead lined containers are included.	Rocky Flats Plant	3	2	2	3
3	1	151	ID-RFO-481T	481	LEACHED NONSPECIAL SOURCE METAL	This waste comes from the Rocky Flats Plant. It consists of the smaller pieces of the waste described under Content Code 480 that have been washed with hot water to recover plutonium. The waste is packaged in standard RFP fashion. Sharp metal edges are taped before packaging. Some lead-lined containers are included.	Rocky Flats Plant	3	2	2	3
3	1	116	ID-RFO-490T	490	CHEMICAL WARFARE SERVICE FILTERS	This waste stream, generated at the Rocky Flats Plant, consists primarily of whole HEPA filters, absolute filters, CWS (chemical warfare service) filters, and prefilters. The filter frames are usually wood, but a limited number are aluminum. The filter media is asbestos-type and fiberglass-type (nomex). Although there may be some organic material, it should be less than 14 lb/ft3 for drums and 6 lb/ft3 for boxes. Significant amounts of respirable fines may be present. No sludges or free liquids should be present. No explosive, pyrophoric, or corrosive materials should be in the waste, except for some residual amounts of nitric acid. The waste is contained in drums and boxes. Drums should be similar to Content Code 335 drums. Each filter was generally double-contained in either PE or PVC bags and then placed in prepared drums. Each drum was assayed. Drums of Content Code 490 waste have not been shipped to INEL since 1975. Boxes contain filters which are single or double-contained in plastic bags, along with their original, cardboard shipping boxes. In boxes prepared after 1974, the boxes are flattened and the filters are crushed. About 12 uncrushed or 25-30 crushed HEPA filters will fit into a box. Portland cement and Oil-Dri were typically added to any containers which contained damp filters. Drums and boxes were prepared and packed according to the usual pre-1972 and post-1972 procedures. Each drum was assayed. Each box was surveyed using the cumulative assay value of the individual filters, determined from drum assays. One box which was shipped in 1972 is apparently mislabeled and is believed to contain metal waste.	Rocky Flats Plant	2	1	2	1

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Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unknown
3	1	66	ID-RFO-700T	700	ORGANIC AND SLUDGE IMMOBILIZATION SYSTEM	Organic and sludge immobilization system (OASIS) waste consists of cutting oil and organic solvents solidified with Envirostone emulsifier, gypsum concrete, and an accelerator. Except for the solidifying agent, the waste is similar to Item Description Code (IDC) 003 waste, and has been assigned the same Waste matrix composition.	Rocky Flats Plant	3	1	2	2
3	1	90	ID-RFO-900T	900	LOW SPECIFIC ACTIVITY PLASTICS, PAPER, E	This waste stream is from the Rocky Flats Plant and primarily consists of nonline-generated combustible materials such as plastics, paper, empty PE bottles, booties, paper, plastic sheeting, and surgical gloves. The waste may be dry or damp. Limited amounts of noncombustibles may also be present. The waste stream is the same as Content Code 330 and has not been used since 1974 except for 3 barrels of U-238 contaminated wastes added in 1975. The waste stream is not discussed together with Content Code 330 because of some different descriptive information in the data base. The average waste organic material content usually exceeds 14 lb/ft3 for drums and 6 lb/ft3 for boxes. Levels of fines should be within WIPP-WAC limits. There should be no sludges, free liquids, explosives, compressed gases, pyrophoric, toxic, or corrosive materials. Depending on when and where the waste was generated at Rocky Flats, the waste packaging may vary. Most wastes were placed directly into prepared 55-gallon drums or boxes. Up to 15 lb of portland cement was added where necessary to absorb small amounts of free liquids in containers. Drums and boxes were prepared according to pre and post-1972 procedures. Inspections were done and adsorbents (Oil-Dri and vermiculite) were added according to standard procedures. All drums are assayed. The fissile content of boxes is determined by surveying the contents and calculating the quantity of fissile material.	Rocky Flats Plant	1	1	2	3
3	1	169	ID-RFO-950T	950	LOW SPECIFIC ACTIVITY METAL, GLASS, ETC.	This waste stream, generated at Rocky Flats Plant, contains primarily nonline generated noncombustible waste from maintenance and renovation. Items in this waste include electrical conduit, water and steam pipes, tools, control panels, electronic instrumentation, light bulbs, windows, office equipment (typewriters, chairs, desks, filing cabinets, etc.), lead shielding, and structural metal. Limited amounts of combustible wastes such as paper, rags, etc. are also included. Most of this waste is contaminated with less that 100 nci/g TRU. The organic content is less than 14 lb/ft3 for drums and less than 6 lb/ft3 for boxes. Fines should not be present in excessive amounts. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste. This waste stream is packaged in drums and in boxes. Depending on size and contamination levels of individual items, the waste is single or double contained in plastics or placed directly into prepared waste drums or boxes. Drums and boxes were prepared according to standard pre and post-1972 procedures. Oil-Dri absorbent is added to many of the containers. Each drum is assayed. Boxes are surveyed for the calculation of fissile contents.	Rocky Flats Plant	2	1	2	3
3	1	91	ID-RFO-970T	970	WOOD	This waste stream is from the Rocky Flats Plant and primarily consists of wood in the form of lumber, plywood, filter frames, and possibly ladders. Some other items such as plastic sheeting, Kimwipes, and other combustibles are also present. Plastic sheeting may have some paint coatings. Limited noncombustibles such as nails and sheetrock may also be included. Content Code 970 has not been used since 1978, it is similar to Content Code 330. The average waste organic material content usually exceeds 6 lb/ft3 for boxes and 14 lb/ft3 for drums. Although limited sawdust fines are expected, levels of fines should be within WIPP-WAC limits. The waste is packaged with no free liquids, sludges, explosives, compressed gases, pyrophoric or corrosive materials. Depending on when and where the waste was generated at Rocky Flats, the waste packaging may vary. Most wastes were placed directly into prepared boxes. Waste such as filter frames were flattened, double-bagged, and placed in prepared 55-gallon drums. Drums and boxes were prepared according to pre-and post-1972 procedures. Inspections were done and adsorbents (Oil-Dri and vemiculite) were added according to standard procedures. All drums are assayed. The fissile content of boxes is determined by surveying the contents and calculating the quantity of fissile material.	Rocky Flats Plant	1	1	2	3

Table 1. INEL transuranic mixed and non-mixed waste identification and description information. 9/17/95

Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unknown
3	1	70	ID-RFO-976T	976	BLDG 776 PROCESS SLUDGE	This waste is from Rocky Flats and consists of sludge from floor drains in a Pu process facility that have been cemented in portland. The cement is described as a poor grade. Also may be laundry sludges, material contents given are for an organic laundry sludge.	Rocky Flats Plant	3	1	2	2
3	1	71	ID-RFO-978T	978	LAUNDRY SLUDGE	This waste is from Rocky Flats. The waste consists of sludge from laundry operations that have been cemented in portland. The cement is described as a poor grade.	Rocky Flats Plant	3	1	2	3
3	1	46	ID-RFO-980T	980	EQUIPMENT	The information for this code is unclear, except that the waste stream consists of only one drum and was generated at the Rocky Flats Plant in 1973. Assay records indicate that the drum contains Content Code 290 sludge, and that the sludge may be in a single bottle. It is assumed that drum preparation, packaging, and inspection were done according to post-1972 procedures. Information given is for IDC 290 sludge.	Rocky Flats Plant	3	1	2	2
3	1	296	ID-RFO-9999T	9999	PRE-73 DRUMS	This is not an official Item Description Code (IDC). It was created to represent IDC zero (0) wastes which were generated prior to 1973, but were not adequately tracked to presently identify specific waste streams. As the mission at Rocky Flats changed very little during the years of operation, it is expected that waste streams generated after 1973 are similar to the pre-1973 waste streams.	Mostly Rocky Flats Plant	2	2	2	3
3	1	316	ID-TAN-200T	200	AMERICIUM SOURCES	This waste was generated at the Idaho National Engineering Laboratory. It consists of an americium neutron source. No other wastes were included in the drum. The waste was placed in a carbon steel pipe which was centered in the 55-gallon drum. Cement was added to fill the annular space between the pipe and drum and encapsulate the pipe containing the source.	Idaho National Engineering Laboratory	3	2	2	3
3	1	327	ID-TRA-291T	*	TRU HEAVY METAL SLUDGE	The waste stream was sludge generated from four catch tanks that were removed from service. The sludge was generated from activitiy in the TRA Hot Cell and the TRA Chemistry Laboratories. This was generated only "one time."	Idaho National Engineering Laboratory	3	2	2	2

End of waste category 3 mixed waste 1

Table 1. INEL transuranic mixed and non-mixed waste identification and description information.

Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unlnown
Mixed Waste =	**2**										
3	2	763	CH-ANL-538	*	RSWF TRANSURANIC WASTE	Radioactive Scrap and Waste Facility (RSWF) Waste containers storing TRU waste from various facilities. Waste includes analytical samples, EBR-I waste, and subassembly hardware.	Idaho National Engineering Laboratory - Argonne National Laboratory - West	3	2	2	2
3	2	786	CH-ANL-539	*	FCF TRU (CH) DISCARDED METAL DEBRIS	Contact handled TRU waste to be generated by FCF pyroprocessing demonstration. Radioactive waste which includes solid metals, tools, piping and discarded equipment.	Idaho National Engineering Laboratory - Argonne National Laboratory - West	3	1	2	2
3	2	787	CH-ANL-540	*	FCF (RH) MISCELLANEOUS TRU WASTE	Fuel Cycle Facility (FCF) Remote-handled (RH) Radioactive Transuranic Miscellaneous waste: hot laboratory waste, filters, etc. This waste has not been generated yet. Hot startup is scheduled for late FY 95.	Idaho National Engineering Laboratory - Argonne National Laboratory - West	2	2	2	2
3	2	788	CH-ANL-541	*	FCF TRU (CH) COMBUSTIBLES	Contact handled TRU waste to be generated by Fuel Cycle Facility pyroprocessing demonstration. This waste is generated in the hot repair facility from decontamination operations. Estimated generation of two drums per year. Normally combustible waste including polyethylene, rags, coveralls, latex gloves,and wood.	Idaho National Engineering Laboratory - Argonne National Laboratory - West	1	1	2	2
3	2	789	CH-ANL-542	*	ANL-752 TRU WASTE	Transuranic waste generated from plutonium casting laboratory (PCL) and Analytical laboratory (AL) Hot cell operations. This waste is typically packged in 55-gallon drums.	Idaho National Engineering Laboratory - Argonne National Laboratory - West	2	1	2	2
3	2	790	CH-ANL-543	*	FCF TRU (CH) COMPACTIBLE WASTE	Contact handled TRU waste to be generated by Fuel Cycle Facility pyroprocessing demonstration. Generated in the hot repair facility from personnel performing maintenance and normal operations. Items include HEPA filters, conduit, ducting, shoe covers, gloves, and light duty structural materials.	Idaho National Engineering Laboratory - Argonne National Laboratory - West	2	1	2	2
3	2	791	CH-ANL-544	*	FCF (RH) TRU GLASS-METAL WASTE	Remote Handled TRU waste to be generated from Fuel Cycle Facility (FCF) pyroprocessing activities. Broken quartz molds from injection casting of new fuel pins are mixed with scrap fuel alloy. Items include glass scrap and some metal scrap.	Idaho National Engineering Laboratory - Argonne National Laboratory - West	3	2	2	2
3	2	766	CH-ANL-HST	*	ANLW TRANSURANIC HAZARDOUS SCRAP	Transuranic scrap containing hazardous materials being stored in ANL-W storage facilities. Scrap is defined as material that has a programmatic purpose. DOE defines scrap as, "The various forms of nuclear material(s) generated during chemical and mechanical processing, other than recycle material and normal process intermediates, which are unsuitable for continued processing, but all or part of which will be converted to usable material by appropriate recovery operations." (DOE 5633.3)			2		
3	2	759	CH-ANL-SCT	*	ANLW TRANSURANIC SCRAP	Transuranic contaminated scrap being stored in ANL-W storage facilities. Scrap is defined as material that has a programmatic purpose. DOE defines scrap as, "The various forms of nuclear material(s) generated during chemical and mechanical processing, other than recycle material and normal process intermediates, which are unsuitable for continued processing, but all or part of which will be converted to usable material by appropriate recovery operations." (DOE 5633.3)			2		
3	2	214	ID-BTO-012TN	12	MISCELLANEOUS SOURCES	There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory. ID-BTO-012TN is currently classified as TRUW. The only radionuclide reported in TWDB for this wastestream is Ra-226. Since radium has an atomic number of 88 it is not usually considered to be a transuranium radionuclide, as defined in DOE Order 5820.2A. Since the TRU alpha activity concentration is less than 100 nCi/g this wastestream may be ALLW.	Bettis Atomic Power Laboratory	3	2	2	3

Table 1. INEL transuranic mixed and non-mixed waste identification and description information.

Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unknown
3	2	215	ID-BTO-015TN	15	NEUTRON SOURCES	There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory.	Bettis Atomic Power Laboratory	3	2	2	3
3	2	237	ID-BTO-050TN	50	SOLIDIFIED SOLUTIONS	This waste stream is from Bettis Atomic Power Laboratory. It consists of a single drum of TRU. No more information is available, but the waste is thought to be solidified inorganic solutions.	Bettis Atomic Power Laboratory	3	1	2	3
3	2	154	ID-BTO-081TN	81	MET SAMPLES FISSILE	There is no descriptive or constituent information available for this waste, which was generated at Bettis Atomic Power Laboratory. ID-BTO-081TN is currently classified as TRUW. The only radionuclide reported in TWDB for this wastestream is Th-232 and U-233. Since thorium and uranium have atomic numbers of 90 and 92 respectively, they are not usually considered to be transuranium radionuclides, as defined in DOE Order 5820.2A. Since the TRU alpha activity concentration is less than 100 nCi/g. this wastestream may be ALLW.	Bettis Atomic Power Laboratory	3	2	2	3
3	2	216	ID-INL-152TN	152	PU NEUTRON SOURCES	This waste stream was generated at Argonne National Laboratory-West at the INEL. These wastes consist of noncombustible materials including Pu-Be neutron sources (small fuel samples, small sections of moderator, a pu standard, and pu foil), tools, hot cell operating equipment, various containers, and ferrous and nonferrous metals. Some combustible materials may include paper, plastic and PVC containers, rags, Q-tips, string mop heads, and an electrical plug strip and cord. The organic content is less than 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste. These wastes are packaged three different ways, depending on when the packaging was done. Pu-Be sources packaged in 1975 were placed in a carbon steel pipe, which was cemented and encapsulated into the center of a 55-gallon drum. In 1978, Pu-Be sources were packaged in four 55-gallon drums. Wastes packed in 1980 were wrapped plastic, placed in paraffin lined 15 gallon drums, and then placed in 55-gallon drums. Some individual items may be unbagged.	Idaho National Engineering Laboratory	2	2	2	3
3	2	211	ID-INL-153TN	153	COMBUSTIBLE LAB WASTE	This waste stream was generated at the Argonne National Laboratory-West at the INEL. Most of the waste is organic and combustible materials including paper, wood, PVC and plastic containers and items, rubber gaskets and gloves, leather, rags, towels, Q-tips, tubing, filter media, abrasive media, and metal pieces. Small residuals of moderators and fuel are trapped on the filters. One of the 28 total drums of Content Code 153 waste is stored at the Transuranic Storage Area (TSA) for contact-handled waste. The other 27 drums are stored at the intermediate level transuranic storage facility (ILTSF) for remote handled waste. The organic content may exceed 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste. Individual waste items may be loose or plastic bagged. Combustibles and noncombustibles are segregated to separate waste cans. Each can is weighed and assayed. The inner waste cans are loaded into an outer waste drum, along with a lead shield plug. Assays are done for each can and for the drums. The waste stream is non-mixed, because the lead is shielding only and not considered part of waste stream.	Argonne National Laboratory-West and Naval Reactor Facility	1	2	2	3
3	2	92	ID-MDO-804TN	804	PLASTIC, TYGON, MANIPULATOR BOOTS, ETC.	This waste stream is from Mound Laboratory and consists of various types of plastics (PVC, PE tygon, etc.) in the form of tubing, piping, sample vials, gaskets, manipulator, boots, etc. Limited amounts of other combustible wastes from content codes 801, and 802 may also be included. One drum contains content code 832, liquid mercury chich can be easily removed and is not included in the waste matrix composition. The wastes are primarily from D&D activities at the plutonium processing and research buildings. Waste was shipped only in 1977. Limited amounts of waste may be damp. The average waste organic material content usually exceeds 14 lb/ft3 for drums. Levels of fines from glove box cleaning should be within compressed gases, pyrophoric, toxic, or corrosive materials. Combustibles were packed into 1 gallon plastic coated cardboard cartons. Each carton was labeled, assayed and bagged into a sleeve bag which holds 5 cartons. Up to eight sleeve bags were placed in each drum. Drums were prepared according to post-1972 procedures.	Mound Laboratory	2	1	2	3

Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unknown
3	2	170	ID-MDO-825TN	825	NONCOMBUSTIBLE EQUIPMENT DRUMS	This waste stream, generated at Mound Laboratory, is similar to content code 824 except that the waste items are smaller and can fit inside drums. The stream consists of noncombustible wastes such as small tanks, piping, small valves, tools, hot plates, presses, grinders, metallurgical polishers, ringstands, concrete, floor tile, sheet metal, electric motors, pumps, metallurgical presses, dissolvers, ladders, vacuum sweeper filters, sweeper hose, and glass. Limited amounts of combustible wastes such as plastic tanks are also included. The organic content is less than 14 lb/ft3. Respirable fines should be within limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste. Some emptied cylinders and fire extinguishers with opened valves are included in the waste. The waste stream is packaged in drums except for one standard sized box, which should be correctly labeled content code 824. Some items are wiped down prior to packaging. Each item is generally single or double contained in plastic. Florco absorbent is added to the bottom of each drum. Plywood spacers are added between the drum liner and the drum lid. Each barrel is assayed.	Mound Laboratory	3	1	2	3
3	2	180	ID-RFO-115TN	115	GRAPHITE WASTE	Certified TRU (for WIPP) graphite waste consists of discarded graphite molds, laboratory equipment and furnace equipment (whole pieces) from plutonium casting of laboratory operations. The IDCs certifiably packaged and included in 115 are 300 and 303.	Rocky Flats Plant	3	1	2	3
3	2	224	ID-RFO-124TN	124	TRU PYROCHEMICAL SALT WASTE	Pyrochemical salt consists of used chloride salts from pyrochemical processes such as electrorefining, molten salt extraction or direct oxide reduction. Very little additional information is available about this content code. This content code includes IDC 411.	Rocky Flats Plant	3	1	2	2
3	2	181	ID-RFO-303TN	303	SCARFED GRAPHITE CHUNKS	After the casting of plutonium in production foundry operations, Item Description Code (IDC) 300 and 301 wastes were mechanically cleaned using a hand-held rotary type sanding tool to grind off contamination, generating scarfed graphite chunks. The mechanical cleaning (scarfing) of the mold surface removed most of the mold coating and plutonium contamination.	Rocky Flats Plant	3	1	2	3
3	2	182	ID-RFO-310TN	310	GRAPHITE SCARFINGS	This waste stream was generated at the Rocky Flats Plant. Graphite scarfings are the pieces of graphite waste generated from scarfing or scraping graphite molds to remove adhered plutonium. The scarfings were not leached with nitric acid to recover plutonium, because the plutonium content was not at above-discard levels. Scarfings which had above-discard plutonium levels were leached and then identified as content code 311. This waste is almost entirely carbon powder and granules. The waste should be inert in storage, but it is essentially 100% combustible. The waste is packaged with no free liquids, sludges, explosives, compressed gases, pyrophoric or corrosive materials. Scarfings are collected into 1-gallon PE bottles. Each bottle is sealed inside PVC and PE bags, and then assayed. About 15-20 bottles will fit into a drum. Drums were packed according to the usual pre-1972 and post 1972 procedures. Since 1972, the drums were also processed according to inspection and sealing procedures, and, since 1982, vermiculite instead of Oil-dri was placed on top of the outer sealed PE drum bag.	Rocky Flats Plant	3	1	2	3
3	2	183	ID-RFO-311TN	311	GRAPHITE HEELS	This waste stream was generated at the Rocky Flats Plant. Graphite heels are the remaining insoluble residue generated from leaching graphite scarfings with hot nitric acid. This box may contain graphite molds and other foundry supplies from a cleanup after a fire in Building 776. The graphite heels are residues of dried filter cake. The waste is almost entirely carbon powder granules. The waste should be inert in storage, but it is essentially 100% combustible. The waste is packaged with no free liquids, sludges, explosvies, compressed gases, pyrophoric, hazardous or corrosive materials. Graphite heels are collected into 1-gal PE bottles. Each bottle is sealed inside PVC and PE bags, and then assayed. About 15-20 bottles will fit into a drum. Drums and the box were packed according to the usual pre-1972 and post 1972 procedures. Since 1972, the drums were also processed according to inspection and sealing procedures, and, since 1982 vermiculite instead of Oil-Dri was placed on top of the outer sealed PE drum bag. Assay method for the box is unknown.	Rocky Flats Plant	1	1	2	3

Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unlnown
3	2	119	ID-RFO-361TN	361	INSULATION HEELS	This waste stream, generated at the Rocky Flats Plant, consists of insoluble residue (heel) of filter media and insulation from HF and HNO3 washing procedures to recover plutonium. This single drum of this waste was received in 1972. There is a likelikhood of excessive fines. The organic material, excluding the 90 mil drum liner, is less than 20 lb (2.7 lb/ft3). Significant amounts of fines may be present. No sludges or free liquids should be present. No explosive pyrophoric, or corrosive materials should be in this waste, except for some residual amounts of nitric acid. There is only one drum of this waste. The waste is packaged in vollrath stainless steel cans and/or 1/2-c. 1-gallon PE bottles. Depending on when the waste was generated, the drum was packed according to the usual pre-1972 and post 1972 procedures. The drum was assayed.	Rocky Flats Plant	3	1	2	3
3	2	184	ID-RFO-370TN	370	LECO CRUCIBLES	This waste stream includes blank LECO crucibles and caps used for sample analysis. The crucibles are 1 inch high by 1 inch diameter, made of fired silica based ceramic. The crucibles were used to calibrate the LECO anlayzer, and contain fused amounts of accelerating metals (iron, tin, copper, titanium, stainless steel, etc.) used for blank calibration. The crucibles should be unbroken except for those generated prior to 1975, which were broken before packaging. Even when broken, there should be minimal respirable or dispersable fines which would not exceed the WIPP-WAC. The waste stream handling and packaging is as follows: blank crucibles and caps were placed into 1-gallon metal paint cans, about 150-200 per can. The can lid was placed and sealed with tape. each paint can was double-bagged out the glovebox in PVC or PE-PVC bags and placed in prepared 55-gallon drums, about 20-25 cans per drum. Prior to 1972, 90-mil sealed rigid liners were used in addition to the two PE bags. Since 1972, drums were inspected (and corrected where needed) for free liquids, proper packaging, and proper content code. One to two quarts of Oil-dri was placed on the outer sealed PE drum bag. Starting in February 1982, 3-12 lb of vermiculite was used to fill the space between the outer drum bag and the rigid liner.	Rocky Flats Plant	3	1	2	3
3	2	196	ID-RFO-372TN	372	GRIT	This waste stream, generated at the Rocky Flats Plant, consists of grit such as aluminum oxide and iron fines and pellets used in grit-blasting operations and spent silica gel desiccant. Potential of excessive fines. The only organic material is the packaging, which averages about 5 lb/ft3, excluding the drum liner. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste. The material is contained in 55-gallon drums. Inside the drums, the grit may be contained in PVC or PE bags in Vollrath stainless steel cans, or in 1-gallon PE bottles inside PVC and PE bags. Silica gel is placed directly into the prepared drums. Drums were prepared and inspected according to pre- and post-1972 procedures.	Rocky Flats Plant	3	1	2	3
3	2	185	ID-RFO-391TN	391	CRUCIBLES AND SAND	This waste consists of broken magnesium oxide crucibles and limited amounts of magnesium oxide sand, used in a molten salt cleanup project when reducing plutonium tetrafluoride to plutonium metal. Above-discard levels of plutonium were recovered from these crucibles by nitric acid leaching. The waste stream handling and packaging is as follows: the crucibles were placed into 1-gallon PE bottles. Each bottle was double-bagged out the glovebox in PVC and PE bags. Each bottle was assayed and the placed in prepared 55 gallon drums, about 12-16 bottles per drum. Some of the drums were lead-lined. Prior to 1972, the drums were lined with one or two PE bags, which were sealed with tape. Some of the drums may have cardboard liners inside of the inner liner. After 1972, 90-mil sealed rigid liners were used in addition to one or two PE bags. Since 1972, drums were inspected (and corrected where needed) for free liquids, proper packaging, and proper content code. One to two quarts of Oil-dri was placed on the outer sealed PE drum bag. Starting in February 1982, 3-12 lb of vermiculite was used to fill the space between the outer drum bag and the rigid liner.	Rocky Flats Plant	3	2	2	3
3	2	186	ID-RFO-392TN	392	SAND, SLAG AND CRUCIBLES	Specific information is not available for this content code. The waste stream is thought to be similar to content code 391, crucibles and sand. The operation which generated the waste is unknown. The waste packaging and handling procedures are unknown, although the waste form is thought to similar to content code 391. Due to lack of information regarding the waste stream, the waste cannot be certified (for WIPP) at present.	Rocky Flats Plant	3	2	2	3

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Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unlnown
3	2	187	ID-RFO-393TN	393	SAND, SLAG, AND CRUCIBLE HEELS	This waste consists of insoluble residue or "heel" generated from processing magnesium oxide sand and pulverized slag and magnesium oxide crucibles to remove above-discard amounts of plutonium. Respirable fines are thought to exceed the WIPP-WAC limits. The waste stream handling and packaging is as follows: the dried heels were placed into 1/2 and 1-gallon PE bottles. Each bottle was double -bagged out the glovebox in PVC and PE bags. Each bottle was assayed and then placed in prepared 55-gallon drums, about 15-30 bottles per drum. Prior to 1972, the drums were lined with one or two PE bags, which were sealed with tape. Some of these drums may have cardboard liners inside the inner drum bag. After 1972, 90-mil sealed rigid liners were used in addition to one or two PE bags. Since 1972, drums were inspected (and corrected where needed for free liquids, proper packaging, and proper content code. One to two quarts of Oil-dri was placed on the outer sealed PE drum bag. Starting in february 1982, 3-12 lb of vermiculite was used to fill the space between the outer drum bag and the rigid liner.	Rocky Flats Plant	2	1	2	3
3	2	228	ID-RFO-410TN	410	MOLTEN SALTS - 30% PULVERIZED	This waste, generated at the Rocky Flats Plant, consists of a fused halide salt mixture of NaCl, KCl, and MgCl2, used to pyrochemically remove americium from plutonium metal. The waste was generated from cleanup of spent salts. Some of the containers are lead lined.	Rocky Flats Plant	3	1	2	3
3	2	229	ID-RFO-411TN	411	ELECTROREFINING SALT	This waste, generated at the Rocky Flats Plant, consists of fused halide salt mixtures of CaCl2, NaCl, KCl and MgCl2 from electrorefining processes. The waste was generated from cleanup of spent salts.	Rocky Flats Plant	3	1	2	3
3	2	230	ID-RFO-412TN	412	GIBSON SALTS	This waste, generated at Rocky Flats Plant, consists of a halide salt mixture of CaCl2 and KCl used in an experimental pyroredox research and development project.	Rocky Flats Plant	3	1	2	3
3	2	153	ID-RFO-416TN	416	ZINC MAGNESIUM ALLOY METAL	This waste come from the Rocky Flats Plant. It consists of one lead-lined drum of small billets of zinc-magnesium alloy metal used in a research and development salt cleanup project. The billets are individually packaged in a produce can and sealed with a roll seam. Each can is contained in two plastic bags and then placed in a stainless steel can. Approximately 50 stainless steel cans are loaded in a single drum.	Rocky Flats Plant	3	1	2	3
3	2	199	ID-RFO-420TN	420	VIRGIN INCINERATOR ASH	This waste, generated at the Rocky Flats Plant, consists of ash generated in the Pu recovery incinerator. Ash is packaged in 0.5- and 1-gallon PE bottles and then in standard RFP fashion in drums. Drums will hold up to 25 bottles depending on Pu content. Bottles are individually assayed and fissile quantities calculated.	Rocky Flats Plant	3	1	2	2
3	2	200	ID-RFO-421TN	421	ASH HEELS	This waste, generated at the Rocky Flats Plant, consists of ash heels generated from the recovery of Pu from incinerator ash. Ash is packaged in 0.5-and 1-gallon PE bottles and then in standard RFP fashion in drums. Drums will hold up to 25 bottles depending on Pu content. Bottles are individually assayed and fissile quantities calculated.	Rocky Flats Plant	3	1	2	2
3	2	201	ID-RFO-422TN	422	SOOT	This waste, generated at the Rocky Flats Plant, consists of flyash generated from periodic cleaning of the Pu recovery incinerator off-gas system. Ash is packaged in 1- and 2-quart PE bottles and then in standard RFP fashion in drums. Drums will hold up to 50 bottles depending on Pu content. Bottles are individually assayed and fissile quantities calculated.	Rocky Flats Plant	3	1	2	2
3	2	202	ID-RFO-425TN	425	FLUID BED ASH	This waste , generated at the Rocky Flats Plant,consists of ash generated from the experimental pilot and demonstration fluid bed incinerator plants. Combustibles used for experiments were contaminated with low levels of Pu. Ash is packaged in standard RFP drums. Drums were assayed and fissile quantities calculated.	Rocky Flats Plant	3	1	2	2
3	2	100	ID-RFO-960TN	960	CONCRETE, ASPHALT, ETC.	This waste, generated at the Rocky Flats Plant, is primarily concrete and asphalt with limited amounts of dirt and combustibles. The code was replaced by 374 in 1973. Content code 374 is considered under the soils, asphalt, and sands waste stream. The major source for this waste is concrete from removal of six reinforced-concrete aqueous treatment tanks. Other sources include concrete from cutouts for doorways, and asphalt from a spill. Information about the waste is not complete. The waste is packaged in standard RFP drums and boxes.	Rocky Flats Plant	3	1	2	3

Table 1. INEL transuranic mixed and non-mixed waste identification and description information.

Waste Category 3=TRUW	Mixed Waste 1=mixed 2= non-mixed	Key Code	Wastestream Identifier Code	Content Code	Waste Stream Name	Description	Generator Site	Combustibility 1=>90% 2=10-90% 3=<10%	Rad Level 1=CH 2=some RH	PCBs 1=expected 2=not expected	Asbestos 1=expected 2=not expected 3=unknown
3	2	47	ID-RFO-995TN	995	SLUDGE	This waste stream, generated at the Rocky Flats Plant, is sewage sludge from cleaning stabilization ponds. This waste also contains a limited number of drums containing sludge generated by plutonium recovery operations. The sludge may be moist or dry, and may consist of fines, chunks or pieces of dried cake. Shipment of sewer sludge to the INEL stopped in 1976. The sewage sludge should contain less than 10 nCi/g TRU elements. Organic content in the sludge is not known. No free liquids should be present. No explosive, pyrophoric, or corrosive materials should be in the waste. Sewer sludge was placed directly into prepared 55-gallon drums until 1974. Drums were prepared according to pre and post-1972 procedures. Portland cement was added to the bottom and top of the inner bag. If the sludge was moist, portland cement was also added in layers with the sludge. Since 1974, packaging was changed to 4 x 4 x 7 ft fiberglass-reinforced polyester (FRP) coated plywood boxes due to the pressure buildup in the drums. Each box was lined with a PE bag and a cardboard liner. About 90 lb of portland cement was added to the bottom and top of each box. Fissile content of the sewage was determined by radiochemical analysis of sludge samples.	Rocky Flats Plant	3	1	2	2
3	2	212	ID-TRA-154TN	154	SAMPLE FUEL	This waste stream was generated at the INEL. These wastes include actinide neutron sources, a radium needle, small vials of fuel, and metal containers of experimental fuel capsules. The organic content is less than 14 lb/ft3. Combustibles, including packaging, may exceed 25 volume percent. The levels of dispersible fines should be within WIPP-WAC limits. No sludges or free liquids should be present. No explosive or pyrophoric materials should be in this waste. These wastes are packaged three different ways, depending on when the packaging was done. Pu-Be sources packaged in 1975 were placed in a carbon steel pipe, which was cemented and encapsulated into the center of a 55-gallon drum. In 1978, Pu-Be sources were packaged in four 55-gallon drums. Wastes packed in 1980 were wrapped plastic, placed in paraffin lined 15-gallon drums, and then placed in 55-gallon drums.	Idaho National Engineering Laboratory - Test Reactor Area	2	2	2	3

End of waste category 3 mixed waste 2